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# Building a Bungalow

The Atlas Portland Cement Company

*Members of the Portland Cement Association*

30 Broad Street, New York      Corn Exchange Bank Bldg., Chicago  
Philadelphia    Boston    St. Louis    Minneapolis    Des Moines    Dayton



*Bungalow of W. Starling Burgess, Architect.*

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*Stucco Bungalow, Narberth, Pa., Thomas Atherholt, Architect. Atlas-White Stucco over hollow tile.*



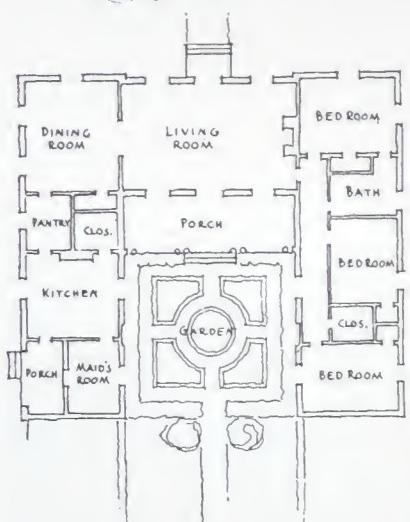
*An attractive Pacific Coast Bungalow of Stucco, Jud Yoho, Architect.*

## "Home"

WHO has not dreamed of a bungalow with low-spreading roof and sturdy chimney nestled cozily among green and flowered shrubbery? Spreading shade-trees extend protecting branches close above. Its porch is ample, broad and spacious, building into the out-of-doors, to which it invites. Whether it be in the suburbs, mountains, or on seashore, river or lake, its setting is charming, hospitable. With its sunny rooms and genial open fireplace within and its harmonious outlines, dainty vine-clad pergola, and a wealth of growing things without, the bungalow breathes the wholesome warmth of "home".

The bungalow, as we know it in America, had its origin in the mild equable climate of California and the Southwest, which brought to homebuilders the desire for a closer relationship to the great out-of-doors. It is distinctly an American idea. In the East its growth is due to the simplified housekeeping which it makes possible, the elimination of stairs to climb, and its artistic superiority over the two and three-story small houses of a generation past.

While a great many bungalows have been built for use in the summer only, especially in the mountains and at the seashore, the bungalow is becoming more and more used the year round in the suburbs of large cities. In some parts of the United States this has even extended to the colony idea, reflecting the increasing popularity of this type of home.



*"Who has not dreamed of a bungalow with low spreading roof and study chimney nestled cozily among green and flowering shrubbery?"*

The bungalow at its best is the result of three important considerations:

- The choice of your building site.
- The selection of your building material.
- The arrangement of lawn, trees, shrubbery and flowers.

In order to help you determine what kind of bungalow you want and to make a complete success of it, so that your bungalow and grounds may be a harmonious unit and suited to your purpose, this book deals mainly with the three subjects listed above.

### Your Architect

Before making a final decision on these matters you should consult an architect who understands this particular type and whose experience and study will make your bungalow a success. You will naturally have certain desires as to the number and sizes of rooms and their relation one to another, the materials to be used, the possible arrangement of trees and shrubs, and the character of bungalow which you favor. You will also know how much you wish to spend. After you have given him your ideas in a general way, it is well to be guided by his advice as to how many of these can be harmonized. He should not be handicapped by inflexible dimensions or by any except the absolutely fundamental requirements.

Your architect will relieve you of all details. He knows where to economize and how to avoid mistakes. He is familiar with the work of different contractors.

## Choosing the Site

By its very nature, the bungalow is a type of house in which the home exists both indoors and out. Your site, therefore, must provide ample room for grounds in keeping with the peculiar individuality and charm of the bungalow—surroundings pretty to look at and inviting to dwell among. The house and its environs must compose a harmonious whole—the two should be planned together.

Further, the bungalow lies close to the ground, and its architectural elements are predominantly low and unbroken. So, in order to enhance the sense of familiar rusticity gained when the house hugs the earth and spreads over it, as it were, the building lot should be correspondingly ample and broad. A high, well-drained site is particularly desirable for a bungalow because one lives so close to the ground.

Wherever possible, the house should face the south, south-west, or south-east, thus avoiding the cold north winds in winter and getting the prevailing breezes in summer.

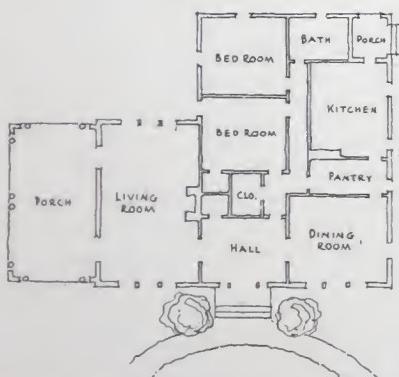
## The Kind of Bungalow

In order to help you to select, and to more clearly visualize, the exact kind of bungalow you choose, let us name the chief considerations which will influence your decision. These are:

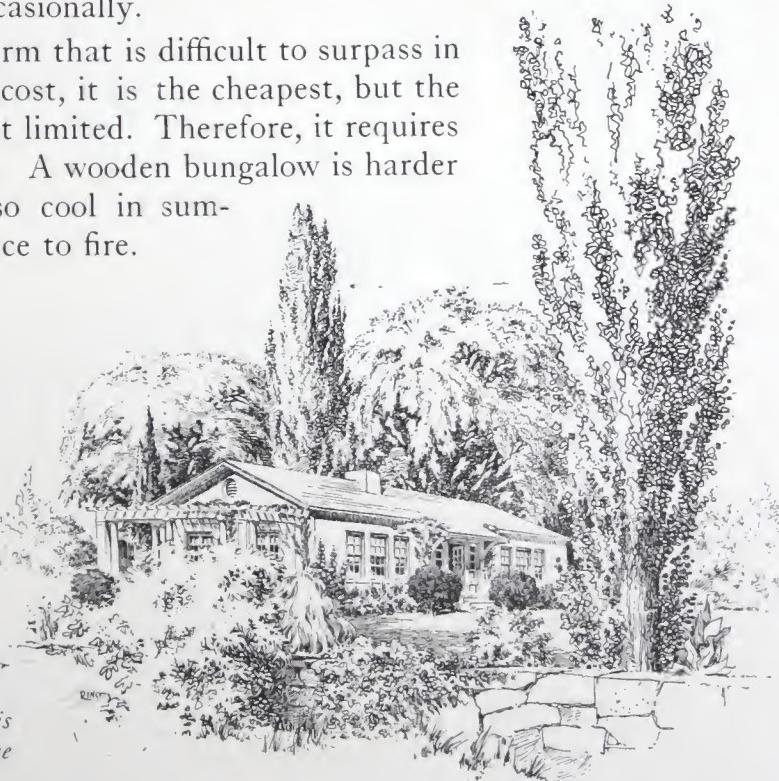
First-cost	Beauty
Repairs and painting	Resistance to heat and cold
Durability	Resistance to fire

The materials most favored for bungalow construction are wood and stucco. Brick and stone are used occasionally.

Wood has a natural charm that is difficult to surpass in any other material. In first-cost, it is the cheapest, but the durability of wood is somewhat limited. Therefore, it requires frequent painting and repairs. A wooden bungalow is harder to heat in winter, and is not so cool in summer. Wood offers no resistance to fire.



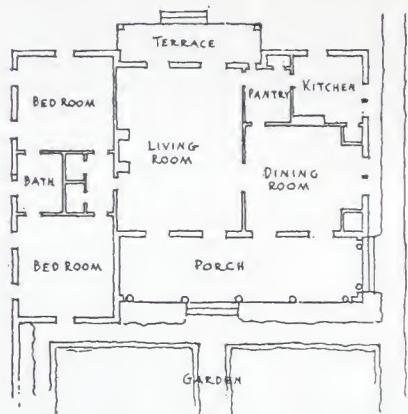
*"By its very nature the Bungalow is the type of house in which the home exists both indoors and out."*



Brick and stone, while splendid materials are only used occasionally, due to their high cost (compared with wood and stucco). Where natural stone is plentiful and suitable, it is very appropriate for the bungalow type of home.

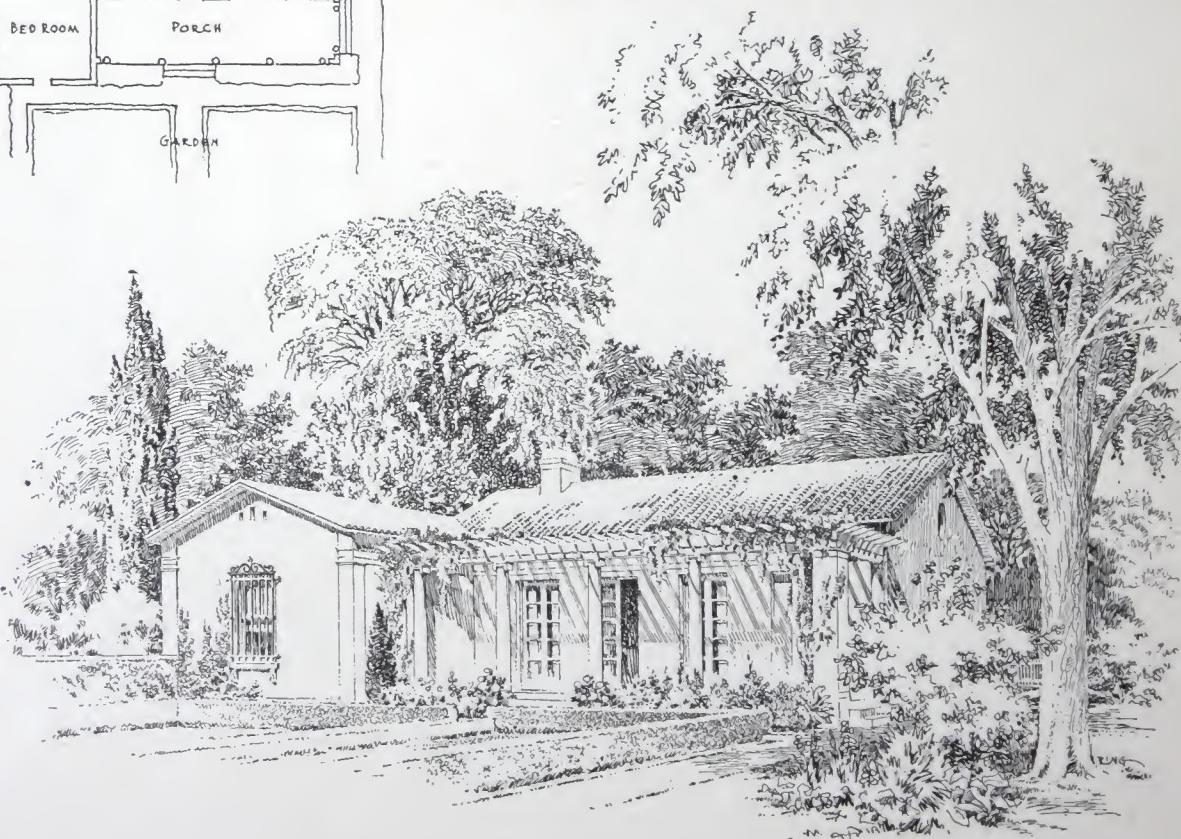
A stucco bungalow is durable and permanent and is almost as low as a wood bungalow in first cost. If well built, it requires no repairs and little or no painting, which makes it the cheapest construction, everything considered. Stucco has been used in Spain, Italy and South America for centuries, and by the Spanish missionaries in California. Some of the stucco built by the Romans still stands in a perfect state of preservation.

The stucco bungalow is warm in winter and cool in summer, and has fire-resisting qualities that (especially if the roof be also of non-inflammable material) are almost the equal of stone. Not only does stucco secure low insurance rates, but the assurance that your belongings, endeared by early associations, are comparatively safe and the lives of your family not easily jeopardized by the burning of nearby structures cannot be expressed in money terms.



The stucco bungalow may be gray, pure white or may be beautifully tinted to warm mellow tones such

*"It is most advisable not to thin out any trees until you have actually lived in your Bungalow for several months. It takes twenty minutes to remove a tree—more than twenty years to grow one."*





*A charming bungalow with spacious veranda. Yonkers, N. Y., S. W. Jones Architect.*

as buffs and creams. Ornamental tiles are often used with good effect. Because of its stone-like quality, it looks and is substantial.

A well-built stucco bungalow amply justifies an honest pride of ownership.

### What Stucco Is

Stucco is a mixture of Portland cement, sand, lime and water worked into a plastic mass and applied on wood or metal lath, ribbed metal lath, hollow tile, concrete blocks or reinforced concrete. These materials have different values in terms of durability and resistance to heat, cold and fire.

### Stucco on Wood Lath

is used where low first cost is highly important. It has this drawback: Under changing conditions of moisture and temperature, the wood sheathing (on which the lath is fastened) and the stucco expand or contract oppositely, and the stucco is therefore more liable to crack. There are, however, a great number of stucco bungalows of this type, and many of them have been satisfactory.

### Stucco on Metal Lath

1—Metal lath on wood sheathing

2—Ribbed metal lath without wood sheathing

With metal lath on wood sheathing, there is, to some extent, the same objection as to the wood lath construction—the opposite action of the wood sheathing and the stucco in expansion and contraction. But many consider it a better form of construction than stucco on wood lath.

If ribbed metal lath is used, no wood sheathing is required. The ribbed lath is attached direct to the studs or supports, in such a way as to allow independent freedom of movement in expansion and contraction. The possibility of cracking is



*The Bungalow is simplicity itself.  
Every bit of space is usable and doors  
and windows can be arranged at will.*

therefore avoided. The ribs also act as reinforcement and give increased strength to the wall. The stucco is applied on the inside of the metal lath (between the studs) as well as on the outside. The result is a two-inch monolithic solid wall which affords protection against fire from the outside and keeps the bungalow cool in summer and warm in winter.

The roof may also be made fire-resistant, by constructing it of cement mortar on metal lath, plastered inside and out.

### Stucco on Hollow Tile

In this construction, there are no wood studs and sheathing. The walls are built of hollow tile and the stucco is applied directly to the tile. Complete protection may be afforded against fire by using fireproof roof and floors.



*Bungalow of stucco over reinforced concrete.  
Milton Dana Morrill, Architect*

The cost of stucco on hollow tile is somewhat higher than the other forms of stucco construction, but it is one of the best types and its use is increasing.

### Stucco on Cement Blocks

Cement blocks are also used as a base on which to apply stucco, affording a durable fire-proof construction at a trifling



*Everything is on one floor and the rooms can be ideally arranged for comfort, convenience, good light and air, because no stairs interfere.*

lower cost than stucco on hollow tile and at about the same cost as stucco on ribbed metal lath.

### Stucco on Reinforced Concrete

Reinforced concrete is the most durable form of building construction. It is permanent and fireproof and requires no painting and maintenance except where wood is used for windows, doors, etc.

The bungalow illustrated on page 13 is constructed of reinforced concrete and then given a finish coat of white stucco. As shown by the small sketches, the plan of the house can be varied considerably, and it can be erected complete for \$1,000 to \$1,250.

### Beautiful Finishes and Tints

The beautiful effects in design which are possible in stucco may be greatly enhanced by various surface finishes or textures, such as are illustrated on page 11.

But until recently the color possibilities of stucco were limited. The development of White Portland Cement has made possible not only an exquisite white marble effect, but many lovely shades and tones, such as warm creams and buffs, by mixing mineral color compounds with the white cement, or by adding colored aggregates to the cement during mixing.

This color is not a coat of paint applied after the completion. Nor does it have to be recolored from time to time. It is a part of the stucco itself.



*"Spreading shade trees extend protecting branches close above."*



*Atlas-White Semi-Bungalow Albany, N. Y.—D. Stuart Douglass, Architect*

### The Advantages of Building Well

Be sure to build well. A bungalow that is well built will require less attention, and will give far greater and more lasting satisfaction than one poorly built. The results depend upon good workmanship as well as upon the selection of a sound type of construction.

### The Out-of-Doors

When the bungalow is built in the woods, the surroundings often take care of themselves. On the other hand, many charming bungalows have been built at the seashore without the surroundings of trees, shrubbery and flowers.

But wherever possible a proper setting is desirable and your architect's advice will be found of great value here.

The plans for the out-of-doors should be well thought out before the building is commenced. It may be advisable to do some grading and to plant at once so as to permit your place to take on a well-settled appearance.

In your scheme, trees will be almost an essential; and, if a number be already standing on your plot, you are indeed fortunate. In order to make room for your bungalow, some trees may require removal, but others that will stand near its walls should not be lightly sacrificed, even though they may inconvenience your builder. It is most advisable not to thin out any trees until you have actually lived in your bungalow for several months. You will then be better able to judge which to eliminate. It takes twenty minutes to remove a tree—more than twenty years to grow one.

Everywhere about your grounds, shrubs may safely be planted with great profusion. They should be so chosen as to provide a constant succession of bloom.

A valuable use of shrubs is to screen chosen portions of your yard, enabling you



*Stucco over concrete is permanent, fireproof and economical. Milton Dana Morrill, Architect*

to obtain such privacy and seclusion that you can actually extend many of the ordinarily indoor functions of your home out into the open air and sunshine. Provide an ample out-of-door space where you can lounge, read a book, or even temporarily place a luncheon table without attracting attention. The drying yard also may be screened with lattice and vines.

Be sure to provide ample play space for the children—a place that is thickly screened from view by shrubbery so that they may be entirely at home in it, and have the sense of ownership that you have in the entire place. If possible, give them a little garden of their own.

It is easy to do away with the never-too-sightly back yard by providing in its place a real garden. A garden can, by a thoughtfully studied arrangement, become an attractive feature in your surroundings. You will not only get a supply of fresh vegetables, but, from its enjoyment and actual cultivation you will receive an amount of pleasure and relaxation that is out of all proportion to the space, time and effort you expend upon it. By all means have a garden.



*Spatter Dash Stucco finish*



*Floated Stucco finish*



*Stippled Stucco finish*



*Pebble Dash Stucco finish*



*Atlas-White Tinted Stucco Bungalow, Merchantsville, N.J. Folsom & Stanton, Architects*

### For the Garage

The reasons for building in stucco rather than wood are greatly emphasized when it comes to the garage. A stucco garage can be made very attractive, in keeping with the bungalow. Stucco affords resistance to fire and can be built absolutely fire-proof, if desired—an important consideration because of the value of your car and the presence of inflammable materials. First cost is low; upkeep almost nothing.

### Summary

In the foregoing pages, you have read the chief considerations that will naturally arise when you are ready to choose and prepare a suitable site for your bungalow, and to select the kind of building material, that will best suit its needs. You have seen that wood and stucco are, in most cases, the most desirable building materials, and that, while a bungalow of stucco is in first cost slightly more expensive than one of wood, stucco is the cheaper of the two when ultimate expense is considered, because once built, it requires little or no upkeep. You have also seen that it is far more durable than wood, that it is more easily kept warm in winter, and is cooler in summer, and that it is fire-resisting.

### Atlas Portland Cement

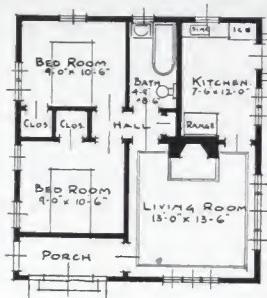
In every type of bungalow construction Portland Cement is used to some extent. As manufacturers of Atlas, the most-used Portland cement, we have naturally come in contact with all the different types of construction. The information in this book is the result of this experience. After reading this book, you will, therefore, be in a position to discuss these different types with your architect, and to

*Model of a small reinforced concrete bungalow, with finish coat of white stucco.  
Milton Dana Morrill, Architect*

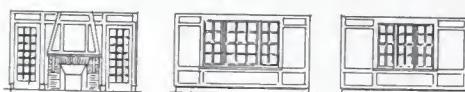


### \$1,000 to \$1,250

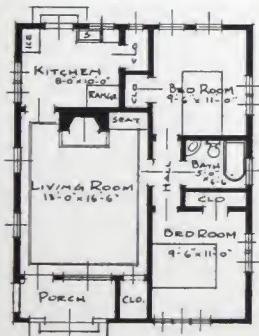
This small bungalow, approximately 25 feet square, can be constructed in reinforced concrete with a finish coat of white stucco, for \$1,000 to \$1,250. It contains five rooms —living room, two bedrooms, kitchen and bath. The arrangement of these rooms can be varied in a number of different ways, as shown on the small floor plans on this page.



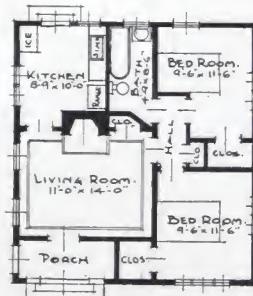
PLAN A



LIVING ROOM DETAILS.



PLAN B.



PLAN C.



LIVING ROOM DETAILS.



*A Beautiful Stucco Bungalow—by A. P. Richardson, Architect*

appreciate the wisdom of his recommendation for good construction and good workmanship, rather than to decide entirely upon price or any other single consideration.

Whichever type of construction you choose, it will be to your advantage to use Atlas Portland Cement, "The Standard by which all other makes are measured."

Atlas is high-grade, uniform and reliable. These qualities have commended it to architects, engineers and contractors to such an extent that it is the leading cement in the world and the most-used. Over 7,000,000 barrels were used exclusively by the United States Government in building the Panama Canal.

### Atlas-White Non-Staining Portland Cement

Atlas-White is a white Portland Cement of the same high quality as gray Atlas Cement. It gives a beautiful, pure white finish for stucco bungalows, garages, pergolas, and is used in making fountains, sun dials, garden seats, etc. It affords a most effective back-ground for trailing vines, shrubbery and evergreens.

Atlas-White is non-staining and is therefore an excellent base for beautiful color effects in stucco construction. Warm creams, buffs and other desired tones are all possible by mixing Atlas-White and color aggregates or mineral pigments.

Atlas-White is also used, because of its non-staining quality, for pointing and setting face brick, stone and tile.

## The Atlas Portland Cement Company

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30 Broad Street, New York City

Boston

Philadelphia

St. Louis

Corn Exchange Building, Chicago

Minneapolis

Des Moines

Dayton



*Atlas-White Stucco Bungalow, near Kansas City, Missouri. H. F. Hoit, Architect*



## Information

IN this book we have endeavored to include the principal points which you will need to consider before building a stucco bungalow. If you desire further information upon any point, we shall be glad to have you write to us.



A charming bungalow garden, with a concrete pool and a stucco pergola. Leonard Morse, Landscape Architect